

Enterprise Digital Transformation and Enterprise Performance

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The Digital Platform, Enterprise Digital Transformation, and Enterprise Performance of Cross-Border E-Commerce —From the Perspective of Digital Transformation and Data Elements. The digital trade ecosystem's development relies on the growth of cross-border e-commerce platforms. To ensure the continued growth of China's digital trade, it is crucial to consider the service capabilities of digital platforms and the digital transformation capabilities of cross-border e-commerce firms.

digital trade

cross-border e-commerce

digital platform

service capabilities

digital transformation

1. Introduction

Cross-border e-commerce is a complex and multifaceted area of study, influenced by various factors such as digital transformation capabilities, platform empowerment capabilities, data elements, regulatory environment, and infrastructure ^{[1][2][3]}. Several key factors impact the success of cross-border e-commerce, including businesses' ability to embrace digital transformation and integrate it into their processes and operations. Investment in digital technologies such as cloud computing, artificial intelligence, and big data analytics can help businesses optimize their cross-border e-commerce strategies. Additionally, access to accurate and up-to-date data, including customer demographics, purchasing behaviors, and preferences, is essential for developing targeted marketing strategies and optimizing product offerings. Reliable and efficient infrastructure, including internet connectivity and logistics networks, is also critical to success. Understanding and adapting to cultural differences, such as language and payment options, are also essential for businesses operating in different markets. Compliance with regulations related to data privacy, taxation, and cross-border trade is also crucial to avoid legal issues and financial penalties. Overall, businesses that effectively leverage digital transformation capabilities and data elements, while adapting to cultural differences and navigating the regulatory environment, are best positioned for success in cross-border e-commerce.

2. Digital Platform Service Capability and Enterprise Performance

There is a dearth of literature that has thoroughly examined the service capabilities of digital platform enterprises in a systematic manner. Nonetheless, a few studies have established that logistics, sales, and conflict coordination

are three critical enterprise service capabilities that have a significant positive impact on the performance of cross-border B2C export enterprises [4][5][6]. Several scholars have investigated the impact of cross-border e-commerce platform service capabilities on enterprise performance. Their research indicates that service capabilities encompass a range of factors, including logistics, electronic payment systems, customs declaration and inspection procedures, and intellectual property protection [7][8]. Several studies have indicated that the performance of export enterprises can be impacted by various factors, such as logistics, marketing, opportunity identification, and conflict coordination [9][10].

Logistics, payment, marketing, and customs clearance are among the critical components examined in research investigating the factors that impact cross-border e-commerce [11][12][13][14]. Therefore, the current stage of the development of cross-border e-commerce ecology is characterized by various influencing factors, such as logistics, payment, marketing, and customs clearance, which are essential for the smooth development of cross-border e-commerce. Chinese scholars have identified these factors based on the actual development of cross-border e-commerce in China and summarized them into five categories: network marketing, international electronic payment, electronic customs clearance, international e-commerce logistics, and e-commerce law. Platform capabilities have been defined based on these factors, and studies have confirmed their positive impact on the performance of cross-border export e-commerce companies. Additionally, other factors, such as market resources [1][3], brand building [3], industry adoption and customs clearance and payment [15], logistics services [4], and government support, have also been found to significantly impact the growth of manufacturing cross-border e-commerce companies.

Academic research on cross-border e-commerce by international scholars typically emphasizes its technological aspects rather than its business model. Therefore, much of the international literature on this topic has investigated the factors that influence the diffusion of cross-border e-commerce technology. These factors are typically classified into four categories: the level of information technology infrastructure adoption [1], perceived benefits of cross-border e-commerce, government policies, and regulations [16][17], and readiness of business partners [18]. The factors hindering the development of cross-border e-commerce include electronic payment [19], market pressure, and customs clearance barriers [20].

Scholars have approached the research on cross-border e-commerce from different angles. Some have investigated the support that digital platforms lack in facilitating the development of enterprises, while others have focused on the capabilities that companies need in utilizing cross-border e-commerce technology. This research posits that examining the services offered by digital platforms is more pertinent to identifying the support that enterprises require.

3. Enterprise Digital Transformation Capability and Enterprise Performance

Enterprise digital transformation is different from the informatization of enterprises [21][22]. Enterprise digital transformation includes applying digital technology in the enterprise production process [2], business process,

business model innovation ^[1], and decision support ^{[12][21]}. There is a significant body of literature examining the impact of digital transformation on enterprise performance. For instance, Vial et al. conducted a study to investigate the effect of digital transformation capabilities on enterprise performance. They identified three key components of digital transformation capabilities: the application of digital technology, organizational change, and value chain changes. Several other scholars have also found evidence of a positive relationship between digital transformation and enterprise performance ^[23].

The digital capability of an enterprise is reflected in its ability to manage customers, processes, and performance. Yasa and other scholars have proposed that this capability can be demonstrated through the effective utilization of digital technology to identify market opportunities, make corporate decisions, innovate business models, and develop new products ^[24]. The digital capability of enterprises encompasses various aspects, such as production and manufacturing, design and management, product innovation, and marketing.

4. Digital Platform Service Capability and Enterprise Digital Transformation Capability

The digital transformation of enterprises is influenced by various factors, which are categorized into technical, organizational, and external environmental factors ^{[2][3][25][26]}. However, in the context of cross-border e-commerce ecosystem development, technical factors differ from the other two categories. Technical factors cannot be realized solely by the enterprise or external motivation ^[1]. It is essential to comprehend technical factors at two distinct levels. The first level pertains to the construction of enterprise informatization, which can facilitate digital transformation. The second level relates to the external environment, which offers digital technologies and their applications to enterprises. These technologies and applications are instrumental in advancing the digital transformation of cross-border e-commerce companies.

It is noteworthy that the cross-border e-commerce platform serves as the core of the entire e-commerce ecosystem ^{[27][28]}. Cross-border e-commerce platforms play a critical role in the digital transformation of enterprises by providing a robust information technology infrastructure and digital-based services that can address the shortcomings of different cross-border e-commerce companies. Moreover, these platforms offer a direct impetus for enterprises to achieve their digital transformation goals.

5. The Mediating Role of Enterprises' Digital Transformation Capabilities

The integration of resources through digital platforms empowers SMEs to enhance their enterprise efficiency. This "platform empowerment" plays a critical role in enabling cross-border e-commerce to adapt to dynamic market environments ^[29]. In the context of cross-border e-commerce, platform enterprises cannot operate in isolation and require coordination with other e-commerce enterprises to generate value ^[30]. Hence, there is a need for a

mechanism that allows other cross-border e-commerce enterprises to participate in the process of empowering corporate performance through platform services [\[31\]](#).

Cross-border e-commerce represents a stage in the evolution of digital trade. Thus, enterprises engaged in cross-border e-commerce should possess and cultivate digital transformation capabilities [\[32\]](#)[\[33\]](#). Companies with stronger digital transformation capabilities are more likely to use platform services to enhance their performance. Thus, it can be concluded that the digital transformation capabilities of cross-border e-commerce firms create a mechanism that links platform services to corporate performance.

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